

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6. (cancelled)

7. (currently amended) A method for allowing a client application to establish, in a client network, a first connection having a first security level with a first port of a server application hosted in a server machine linked to a server network, in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

creating a second port in the gateway machine;

rerouting to the second port of the gateway machine, by ordering the network layer (CR) of the gateway machine, any message sent and addressed to the first port of the server machine;

receiving at the second port of the gateway machine a request addressed to the first port of the server application to establish said first connection with the first port of the server application;

listening to the second port of the gateway machine to detect the request addressed to the first port of the server application to establish said first connection with the first port of the server application; and

generating, in the gateway machine, a thread which establishes said first connection;

wherein said generating is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection;

defining a third port of the server application for receiving at least one of the messages with a second security level; and

deleting, by ordering the network layer (CR) of the gateway machine, any message sent to the third port regardless of a security level of said message sent to the third port.

8. (currently amended) A method according to claim 7, ~~further comprising:~~
~~defining a third port of the server application for receiving at least one of the messages with a second security level;~~

wherein said thread:

establishes said first connection in a first phase with the first security level in a first interface associated with the second port and with said request;

establishes in a second phase, a second connection with the second level of security in a second interface to the third port in the server machine;

writes with the second security level in the second interface, any message read in the first interface with the first security level in a third phase, and

writes with the first security level in the first interface, any message read in the second interface with the second security level in a fourth phase.

Claim 9. (cancelled)

10. (previously presented) A method according to claim 7, wherein said creating and rerouting are executed automatically by a first process of the gateway

machine, and said first process generates a second process that executes said listening and generating.

11. (previously presented) A method according to claim 8, wherein said creating and rerouting are executed automatically by a first process of the gateway machine, and

said first process generates a second process that executes said listening and generating.

12. (currently amended) A method according to claim 97, further comprising: automatically executing said creating, rerouting, and deleting, by a first process of the gateway machine; and

generating, by said first process, a second process that executes said listening and said generating.

Claim 13. (cancelled)

14. (currently amended) A method for allowing a client application to establish, in a client network, a first connection having a first security level with a first port of a server application hosted in a server machine linked to a server network, in order to send messages addressed to the server machine, said messages passing from the client network to the server network through a network layer (CR) of a gateway machine, the method comprising:

generating, in the gateway machine, a thread which establishes said first connection; and

activating, in the gateway machine, a secure application proxy that reroutes the messages addressed to the first port of the server application away from the first connection, in a way that is transparent to the client application, so as to establish a second connection having a second security level with the server application,

wherein said generating is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection, ~~and~~

wherein said second connection is unknown to said client application;

defining a third port of the server application for receiving at least one of the messages with a second security level; and

deleting, by ordering the network layer (CR) of the gateway machine, any message sent to the third port regardless of a security level of said message sent to the third port.

Claim 15. (cancelled)

16. (currently amended) A method according to claim ~~45~~14, further comprising:

automatically executing said creating[[,]] and rerouting, ~~and deleting~~, by a first process of the gateway machine; and

generating, by said first process, a second process that executes said listening and generating.

17. (new) A method according to claim 16, further comprising:

automatically executing said deleting by said first process of the gateway machine.